TEST REPORT

Name of sample Centurion CD

Specifications CCD

FCC ID WER-DSS-CCD

Inspected unit Digistore Solutions(S) Pte. Ltd.

Test purpose Commission

China Guangzhou Electrical Safety Testing Institute
of State Bureau of Technical Supervision
(CEST)

TEST REPORT

PRODUCT: Centurion CD

MODEL NO.: CCD

FCC ID: WER-DSS-CCD

RECEIVED: January. 01,2008

TESTED: July. 29,2008

APPLICANT: Digistore Solutions(S) Pte. Ltd.

ADDRESS: 80 Genting Lane #05-01A Ruby Industrial Complex (Genting Block) Singapore 349565 Republic of Singapore

ISSUED BY: China Guangzhou Electrical Safety Testing Institute of State Bureau of Technical Supervision (CEST)

LAB LOCATION: No.6, Haichengdong Street, Xingangdong Road, Haizhu Distict, Guangzhou, P.R.China

Tel: 0086-20-89232852 Fax: 0086-20-89232907

Table of Contents

1	CERTIFICATION	3
2	SUMMARY OF TEST RESULTS	4
3	GENERAL INFORMATION	5
3.1	GENERAL DESCRIPTION OF EUT	5
3.2	DESCRIPTION OF TEST MODES	5
3.3	DESCRIPTION OF SUPPORT UNITS	6
4	EMISSION TEST	7
4.1	CONDUCTED EMISSION MEASUREMENT	7
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	7
4.1.2	TEST INSTRUMENTS	7
4.1.3	TEST PROCEDURE	8
4.1.4	DEVIATION FROM TEST STANDARD	8
4.1.5	TEST SETUP	8
4.1.6	EUT OPERATING CONDITIONS	9
4.1.7	TEST RESULTS	9-10
4.2	RADIATED EMISSION MEASUREMENT	11
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	11
4.2.2	TEST INSTRUMENTS	11
4.2.3	TEST PROCEDURE	12
4.2.4	DEVIATION FROM TEST STANDARD	12
4.2.5	TEST SETUP	13
4.2.6	EUT OPERATING CONDITIONS	13
4.2.7	TEST RESULTS	14-15
5	PHOTOGRAPHS OF SAMPLE	16
5.1	PHOTO OF ENCLOSURE	16
5.2	PHOTO OF STRUCTURE	17-19
5.3	PHOTO OF NAMEPLATE	20
6	PHOTOGRAPHS OF THE TEST CONFIGURATION	21
6.1	CONDUCTED EMISSION TEST	21
6.2	RADIATED EMISSION TEST	22
7	APPENDIX - INFORMATION ON THE TESTING LABORATORIES	23

1 CERTIFICATION

PRODUCT: Centurion CD

MODEL NO.: CCD

FCC ID: WER-DSS-CCD

APPLICANT: Digistore Solutions(S) Pte. Ltd.

APPLICANT ADDRESS： 80 Genting Lane #05-01A Ruby Industrial Complex (Genting Block) Singapore 349565 Republic of Singapore

FACTORY： Digistore Solutions(S) Pte. Ltd.

FACTORY ADDRESS： 80 Genting Lane #05-01A Ruby Industrial Complex (Genting Block) Singapore 349565 Republic of Singapore

STANDARDS: FCC Part 15, Subpart B, Class B, ANSI C63.4-2003

RESULT: Two items are tested in this commissioned test. All are found to comply with the apply standard.

We, China Guangzhou Electrical Safety Testing Institute of State Bureau of Technical Supervision(CEST), hereby certify that sample (Product:Centurion CD) of the designation has been tested in our facility on July.27.2008.The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

TESTED BY: _____, DATE: July. 29, 2008
(GUAN Weibin)

CHECKED BY: Zhong Yuansheng, DATE: July. 29, 2008
(ZHONG Yuansheng)

APPROVED BY: SHI Guangming, DATE: July. 29, 2008
(SHI Guangming)

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

FCC Part 15, Subpart B, Class B, ANSI C63.4-2003	Conducted Test	PASS	----------
	Radiated Test	PASS	----------

NOTE: The information of measurement uncertainty is available upon the customer's request.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Centurion CD
MODEL NO.	CCD
POWER SUPPLY	100~240V/AC, 50/60Hz
PHASE	Single
EARTHING	No
PROTECTION CLASS	II
RATED CURRENT	1.0A

NOTE:
Description of Differentia type:

Other explanation:
For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 DESCRIPTION OF TEST MODES

Test after 15min warm up.

3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	PP113	WH563A01	E2KWM3945ABG

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS

NOTE: ---

4 EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTES: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
(3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS30	100071	Oct. 30, 2008
ROHDE & SCHWARZ Artificial Mains Network (For EUT)	ESH3-Z5	100088	Oct. 30, 2008
SHIELDED ROOM	8.0×4.5×3.2(m)	16944-C	Oct. 30, 2008

NOTE: 1.The calibration interval of the above test instruments is 12 months.
2. "*": These equipment are used for conducted telecom port test only (if tested).

4.1.3 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

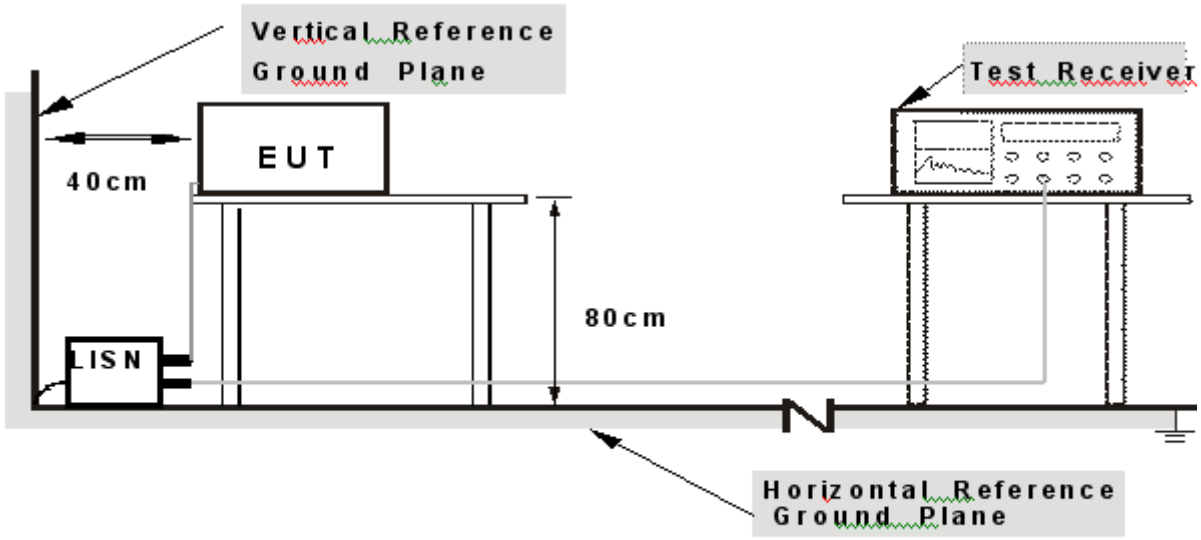
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNS (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes.

For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

a. Turned on the power of all equipment.
b. Test after 15min warm up.

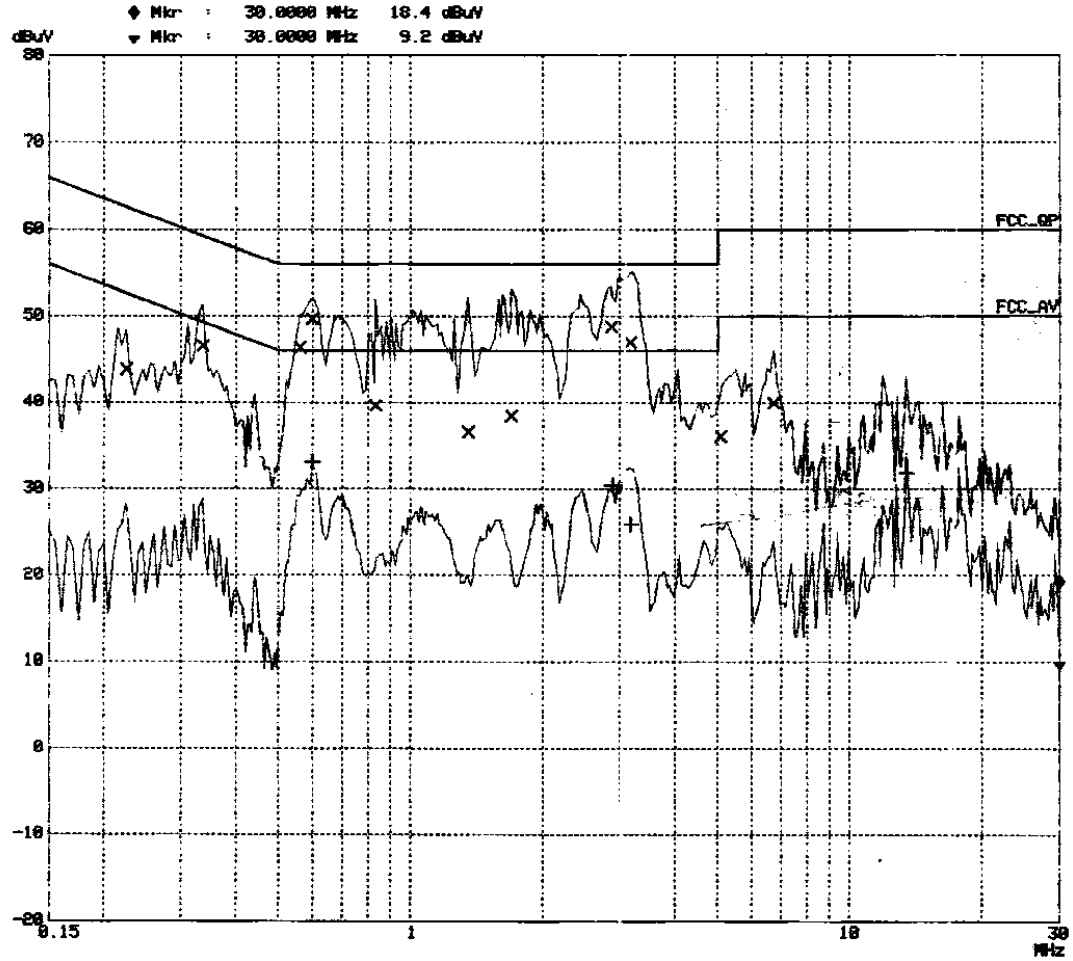
4.1.7 TEST RESULTS

EUT	Centurion CD	MODEL NO.	CCD
PHASE	Line(L)	INPUT POWER	120V/AC ， 60Hz
FREQUENCY RANGE	150kHz-30MHz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 9kHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 50 % RH, 101kPa	TESTED BY: GUAN Weibin	

No	Freq.	Emission Level		Limit		Margin	
		[dB(uV)]		[dB(uV)]		(dB)	
	[MHz]	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.33500	46.6	28.5	56	46	-9.4	-17.5
2	0.56000	46.4	30.2	56	46	-9.6	-15.8
3	0.59500	49.7	33.2	56	46	-6.3	-12.8
4	1.69500	38.4	22.8	56	46	-17.6	-23.2
5	2.86500	48.8	31.7	56	46	-7.2	-14.3
6	3.16000	47.0	26.0	56	46	-9.0	-20.0

REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. The other emission levels were very low against the limit.
3. Margin value = Emission level – Limit value.
4.If the test result less than limit for margin 16dB, That non-record quasi-Peak and average data at the frequency.
5. The test result is bigger data for line L or N.

DIAGRAM:


◆ Mkr : 30.0000 MHz 18.4 dBuV
▼ Mkr : 30.0000 MHz 9.2 dBuV
dBuV
80
70
60
50
40
30
20
10
0
-10
-20
0.15
1
10
30
MHz
FCC_QP
FCC_AV

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT FOR FREQUENCY

FREQUENCY (MHz)	Class A (at 3m)	Class B (at 3m)
	dBuV/m	dBuV/m
30 - 88	49	40
88 - 216	53.5	43.5
216 - 960	56	46
Above 960	59.5	54

Note: (1) The lower limit shall apply at the transition frequencies.
(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Anechoic Chamber	FACT-4	16944-A	Oct. 30 2008
Broadband Antenna	3142B	1642	Oct. 30 2008
EMI TEST RECEIVER	ESIB26	100176	Oct. 30 2008
Broad-Band Horn Antenna	BBHA9120D	08106	Oct. 30 2008
* Software	ES-K1	NA	

NOTE: 1. The calibration interval of the above test instruments is 12 months.
2. "*" = These equipment are used for the final measurement.

4.2.3 TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

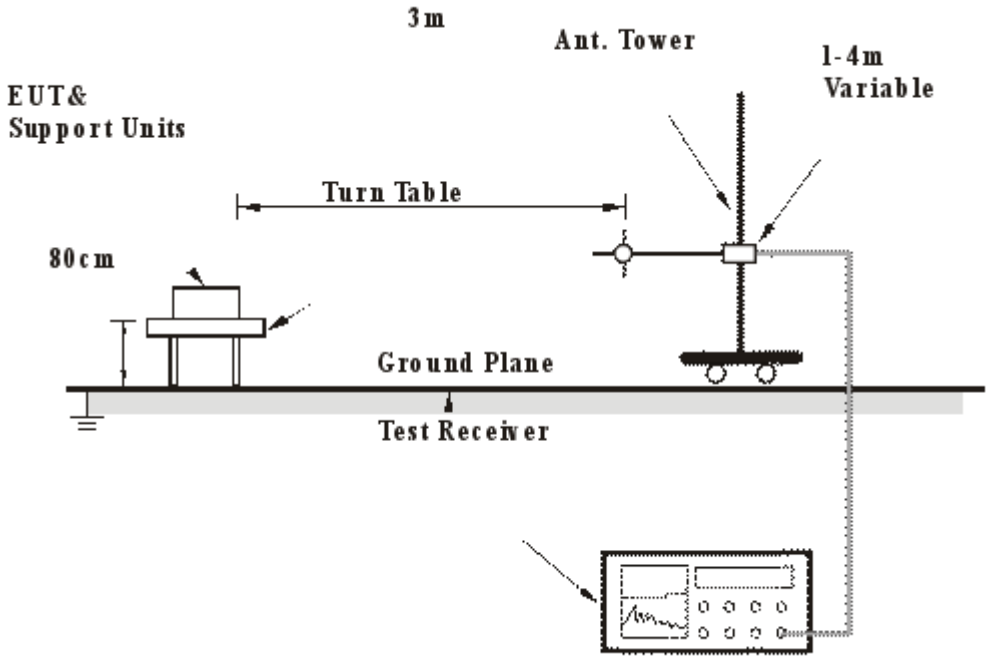
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the interference antenna.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

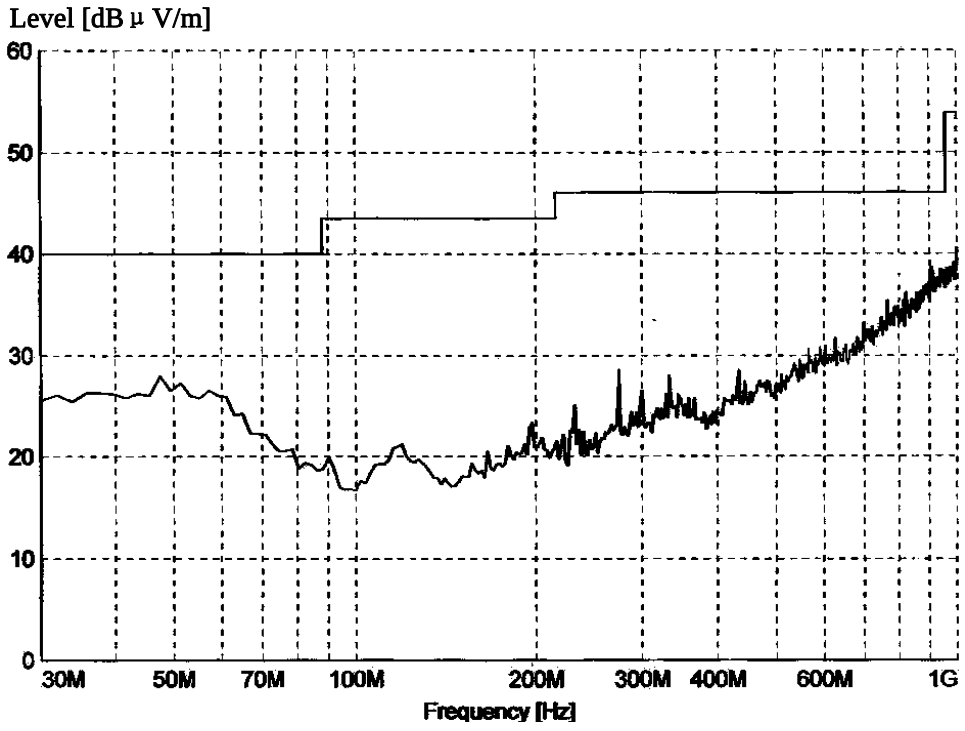
4.2.7 TEST RESULTS

EUT	Centurion CD	MODEL NO.	CCD
MODE	On mode	INPUT POWER	120Vac, 60Hz
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	21deg. C,48% RH, 101kPa	TESTED BY:	GUAN Weibin

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M						
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	43.997996	27.12	40.0	-12.88	1	0
2	48.038076	28.50	40.0	-11.50	1	0
3	49.679359	27.31	40.0	-12.69	1	0
4	49.931864	27.50	40.0	-12.5	1	0
5	232.865731	25.54	46.0	-20.46	1	0
6	275.350701	29.43	46.0	-16.57	1	0

REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. The other emission levels were very low against the limit.
3. Margin value = Emission level – Limit value.

DIAGRAM: Horizontal

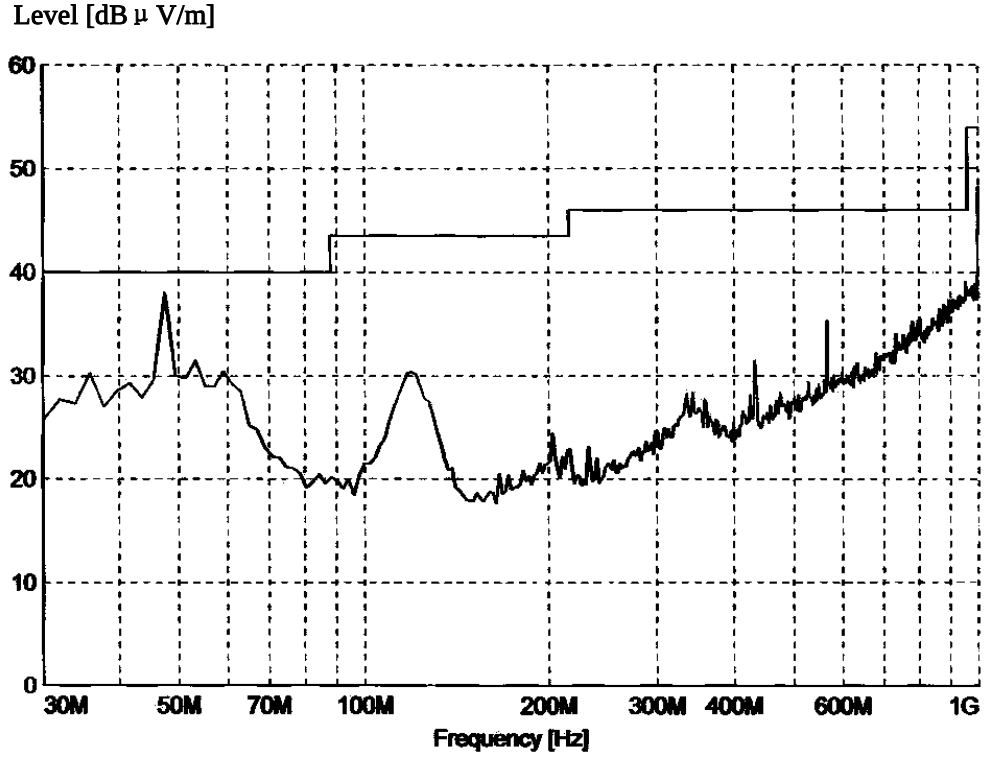


EUT	Centurion CD	MODEL NO.	CCD
MODE	On mode	INPUT POWER	120Vac, 60Hz
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	21deg. C,48% RH, 101kPa	TESTED BY:	GUAN Weibin

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M						
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	47.949900	35.12	40.0	-4.88	1	0
2	47.981964	36.82	40.0	-3.18	1	0
3	48.078156	34.04	40.0	-5.96	1	0
4	48.238477	32.46	40.0	-7.54	1	0
5	54.430862	31.52	40.0	-8.48	1	0
6	119.839679	27.44	43.5	-16.06	1	0
7	1000.000000	49.12	54.0	-4.88	1	0

REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. The other emission levels were very low against the limit.
3. Margin value = Emission level – Limit value.

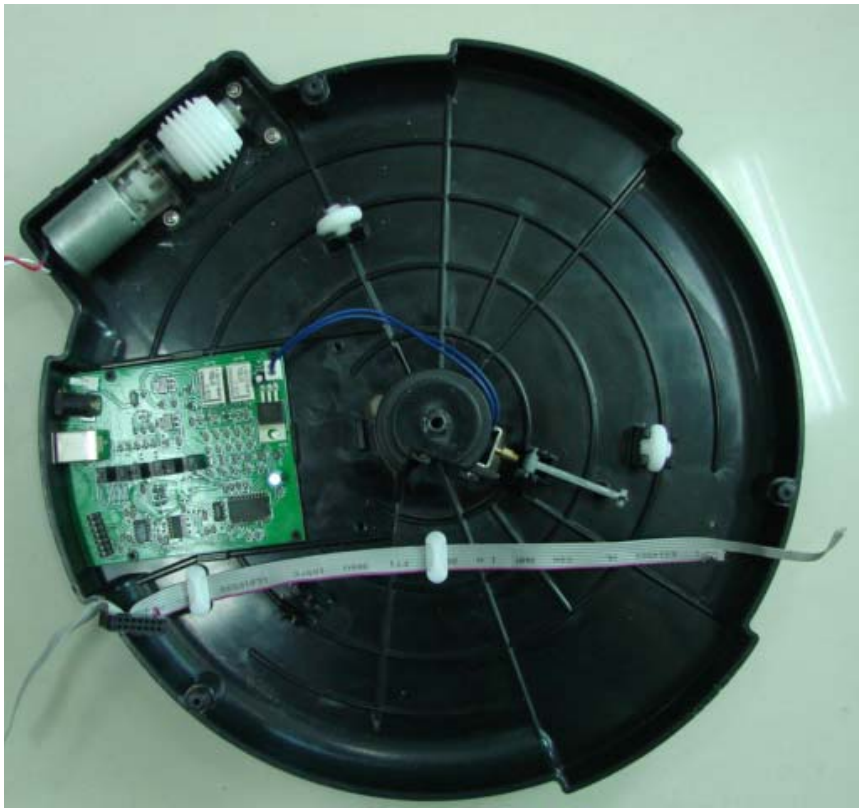
DIAGRAM: Vertical

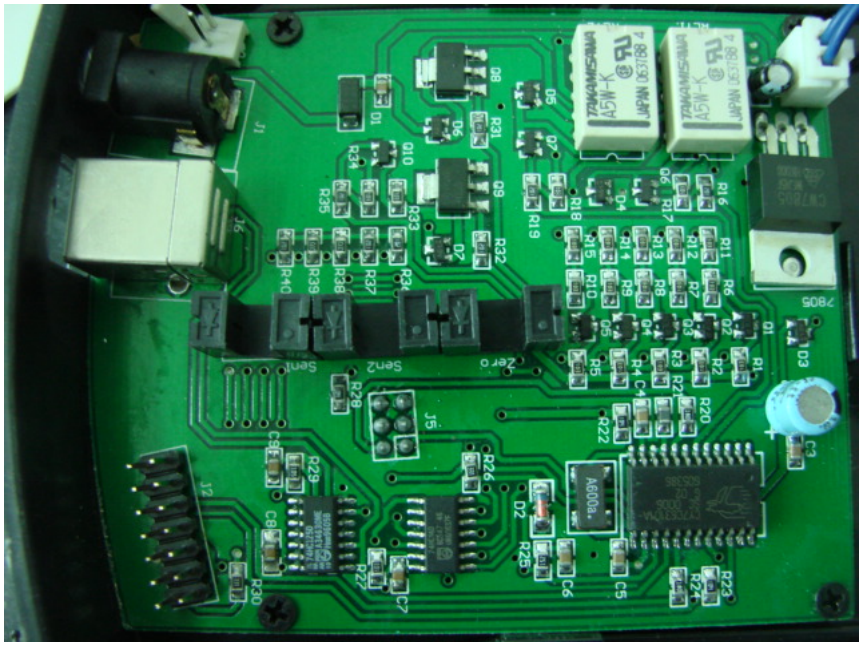


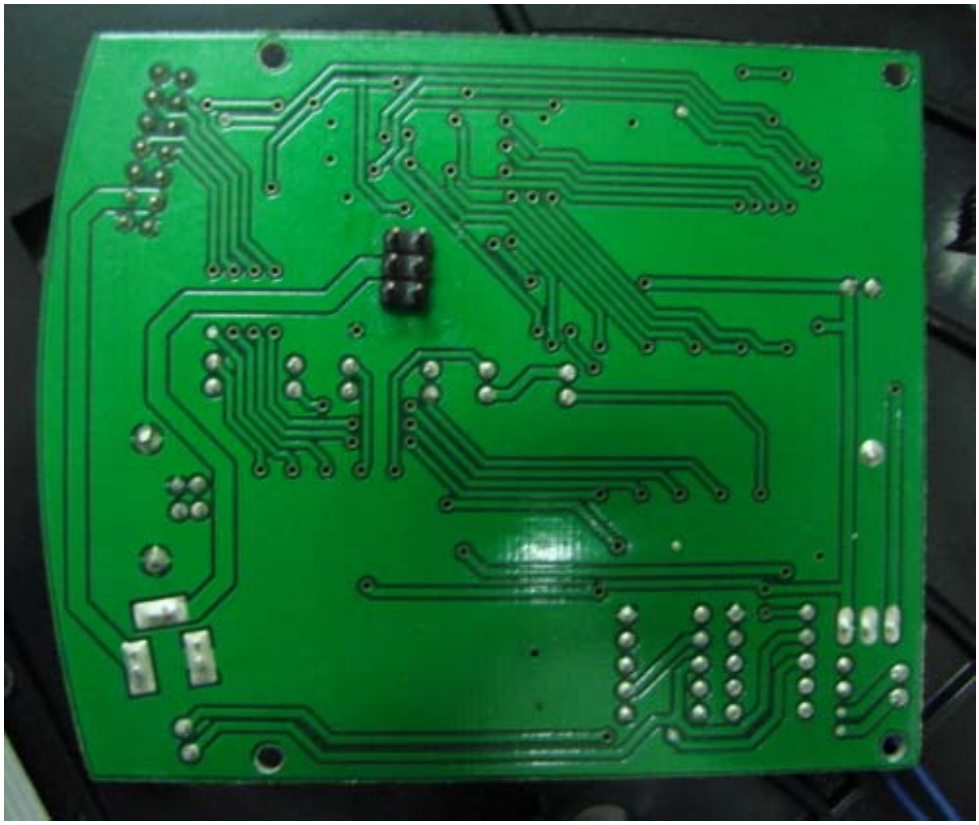
5 PHOTOGRAPHS OF SAMPLE

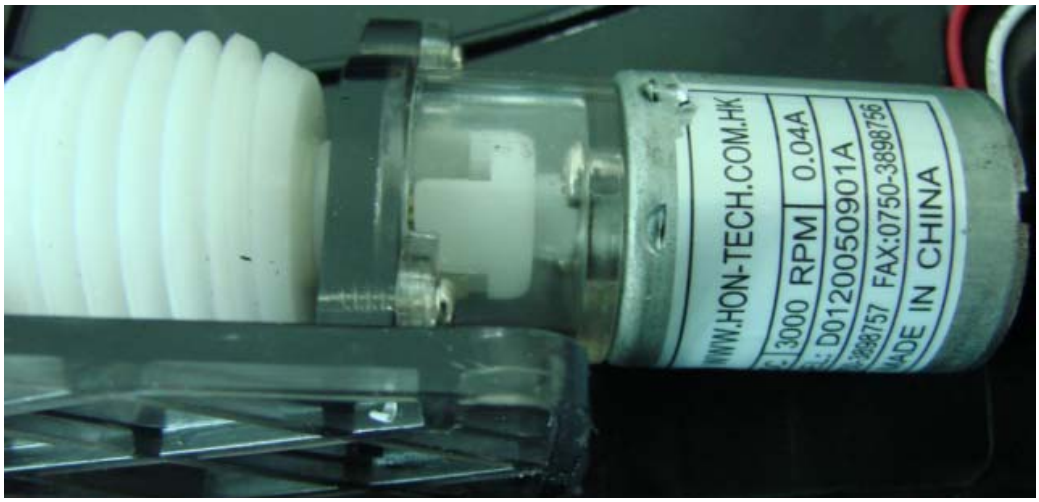
5.1 PHOTO OF ENCLOSURE

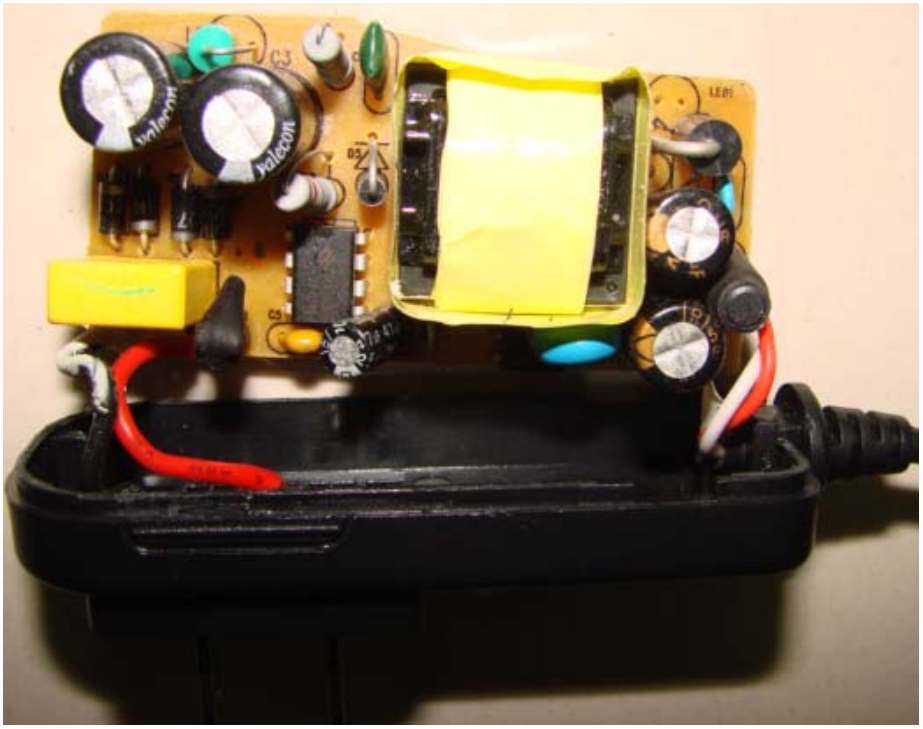
5.2 PHOTO OF STRUCTURE

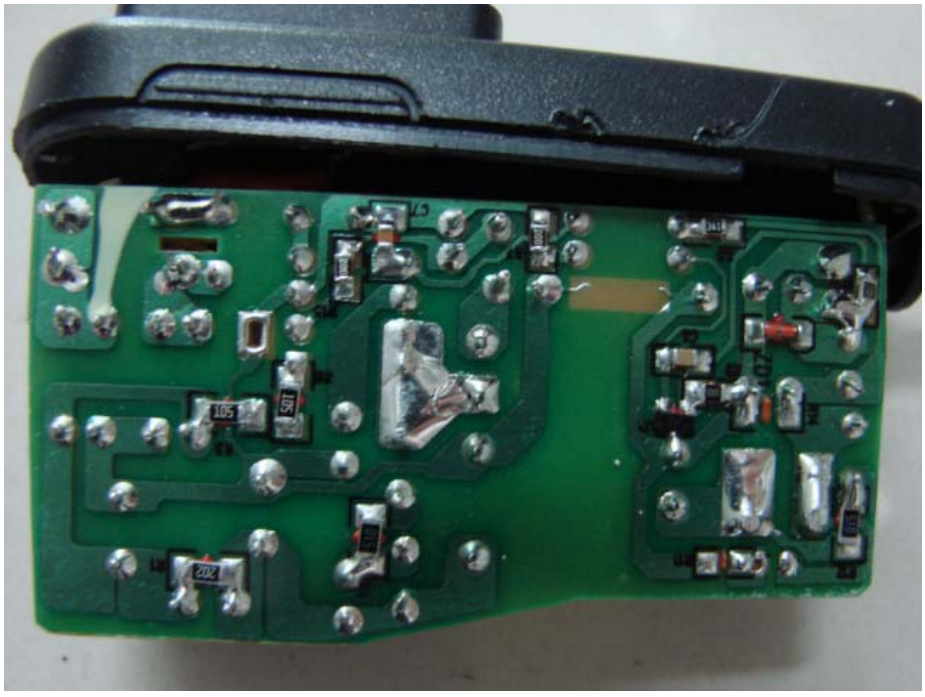







WWW.HON-TECH.COM.HK
3000 RPM 0.04A
D0120050901A
MADE IN CHINA





5.3 PHOTO OF NAMEPLATE

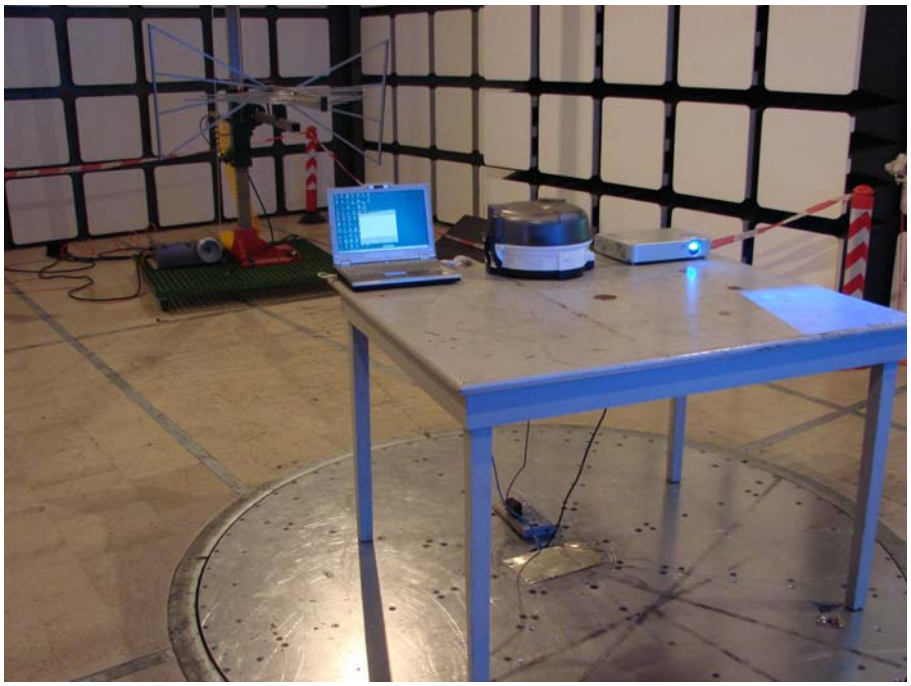
FCC ID：WER-DSS-CCD This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference,and (2)this device must accept any interference received, including interference that may cause undesired operation.

6 PHOTOGRAPHS OF THE TEST CONFIGURATION

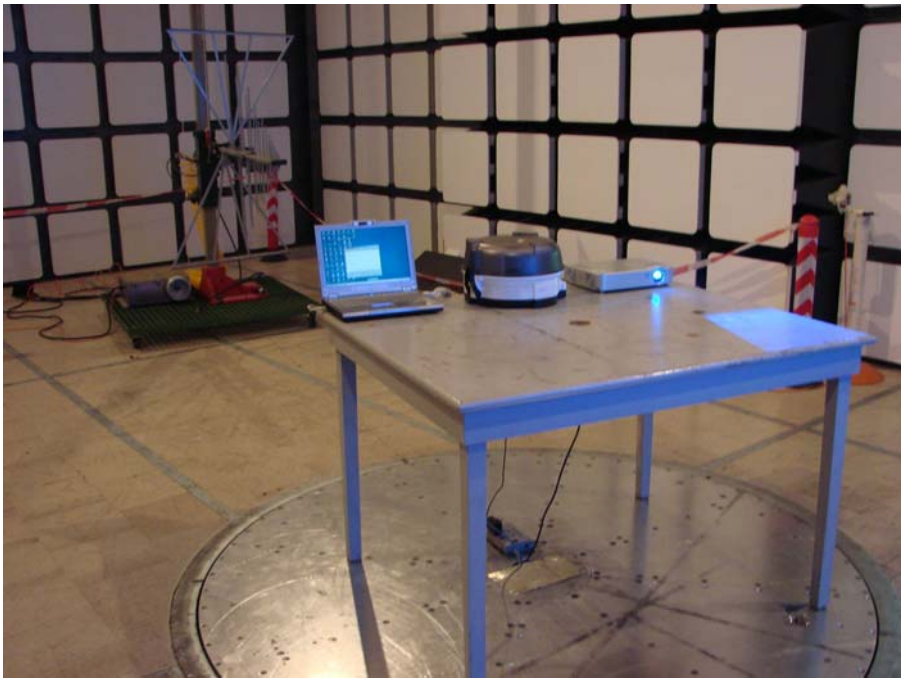
6.1 CONDUCTED EMISSION TEST

6.2 RADIATED EMISSION TEST

Antenna direction: Horizontal



Antenna direction: Vertical



7 APPENDIX - INFORMATION ON THE TESTING LABORATORIES

We, CEST, were founded in 1983 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, ISO/IEC 17020:

China	CNAS, CMA, CAL
USA	FCC
Norway	NEMKO

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: http://www.cest.cn/
If you have any comments, please feel free to contact us at the following:

Address:No.6, Haichengdong Street, Xingangdong Road,
Haizhu Distict, Guangzhou, P.R.China
Telephone exchange: 0086-20-89232806
Tel: 0086-20-89232852、89232907、89232806—207、210
Fax: 0086-20-89232907
P.C.:510330
E-Mail: dz@cest.cn emc@cest.cn

The address and road map of all our labs can be found in our web site also.